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EXAMINER

BERRIOS, JENNIFER A

ART UNIT	PAPER NUMBER
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1613

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/532,317	Applicant(s) NGUYEN ET AL.	
	Examiner Jennifer A. Berrios	Art Unit 1613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,23-25,27-31,35-42 and 44 is/are pending in the application.
- 4a) Of the above claim(s) 27-30 and 42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 23-25, 31, 35-41 and 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This office action is in response to the reply filed 11/19/2010, wherein claims 1, 35, 42 and 44 have been amended and claims 22, 32-34 and 43 have been cancelled.

Currently claims 1, 23-25, 31, 35-41 and 44 are being examined and claims 27-30 and 42 are withdrawn as being drawn to a non-elected group and/or species.

Maintained Rejections

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 21-23, 31-32, 38-41 and 44 **remain** rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wisotzki et al (US 4,900,545, issued: 2/13/1990).

Wisotzki et al teaches a composition for the regeneration of hair split-ends in an aqueous or aqueous/alcoholic solution or emulsion, containing panthenol, at least one mono- or di-saccharide and optionally polyvinylpyrrolidone (PVP).

Regarding claim 21, 23 and 31: The composition comprises PVP (defined by the instant spec to be a suitable film-forming agent), a film-forming constituent of hair care preparations in amounts ranging from 0.1-0.5 wt% (claim 5 and Col. 2, lines 55-58) and a saccharide unit preferably in amounts ranging from 0.1-5% (Table 2, claims 2-5).

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Regarding claims 21-22 and 32: The mono- or disaccharides are any aldoses and ketoses, preferably pentoses and hexoses. Suitable options include: glucose, mannose, galactose, ribose, arabinose, xylose (elected species – selected from a finite number of options), fructose, sorbose, lactose, maltose or cellobiose (claim 10 and Col. 2, lines 35-42).

Regarding claim 37: The composition is in the form of aqueous or aqueous/alcoholic, solutions or emulsions (Abs, claim 1 and Col. 2, lines 13-15).

Regarding claim 39: Other surfactants, such as ampholytic, zwitterionic and/or non-ionic surfactants may be present in the composition (Col. 4, lines 48-51).

In the alternative, Wisotzki teaches both hexoses and pentoses are equally effective in regenerating and revitalizing hair and teaches sugars in the same amounts defined in the instant specification. As such one of skill in the art would be motivated to elect a C5 monosaccharide, such as xylose for use in the composition. Wisotzki also states that technically all naturally occurring mixtures of mono or disaccharides are suitable for the hair regenerating hair-split ends and revitalizing hair.

Regarding claims 21, 40-41 and 44: As the composition of the prior art teaches a film-forming agent in the amounts recited by the instant claims and a C5 monosaccharide in amounts recited by the instant specification, absent showing evidence to the contrary, the composition of the prior art and the composition recited are expected to have the same properties, as they have the same structural limitations. As such, the hair compositions containing sugars of Wisotzki would be expected to possess the ability to impart the claimed durable non-permanent shaping of hair fibers.

It is noted that In re Best (195 USPQ 430) and In re Fitzgerald (205 USPQ 594) discuss the support of rejections wherein the prior art discloses subject matter which there is reason to believe inherently includes functions that are newly cited or is identical to a product instantly

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claimed. In such a situation the burden is shifted to the applicants to "prove that subject matter shown to be in the prior art does not possess characteristic relied on" (205 USPQ 594, second column, first full paragraph).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 21-25, 31-32, 35-41 and 44 **remain** rejected under 35 U.S.C. 103(a) as being unpatentable over Wisotzki et al (US 4,900,545), Beck et al (US 2002/0031483) and BASF (Polymeric Luviquat Grades, May 1998).

Claims 21-23, 31-32, 38-41 and 44 are taught in the Wisotzki 102b/103 rejection above.

Regarding claims 35-37: Wisotzki et al teaches at least one mono- or di-saccharide. The mono- or disaccharides are any aldoses and ketoses, preferably pentoses and hexoses. Suitable options include: glucose, mannose, galactose, ribose, arabinose, xylose (elected species – selected from a finite number of options), fructose, sorbose, lactose, maltose or cellobiose (claim 10 and Col. 2, lines 35-42). As Wisotzki teaches that different sugars can be used and the composition can comprise more than one, one of skill in the art would have been motivated to combine functional equivalents (different saccharides) for the same purpose (use in hair compositions) in order to create a third composition. One of skill in the art would also be motivated to optimize the quantity of additional sugars use and the total quantity of sugar, in order to optimize the regeneration and revitalization of the hair

Wisotzki teaches the elected xylose, but does not teach the composition to comprise a cationic film-forming polymer specifically, polyquaternium-46.

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Beck teaches a hair treatment composition comprising a compound chosen from a TCA cycle intermediate, a carbohydrate, a sugar, a fatty acid product or a glycolysis product. Appropriate sugars include trioses such as glyceraldehydes (aldose), and dihydroxyacetone (ketose), tetroses such as erythrose, threose, and erythrulose, pentoses such as ribose, arabinose, xylose, lyxose, ribulose and ribulose phosphate and xylulose

Further, Beck teaches furanoses, pyranoses, phosphate derivatives of sugars [0015].

Beck also teaches the film-forming cationic polymers such as Polyquaternium 16, which is also claimed [0041]. Beck also teaches that the composition preferably contains 0.01% to 0.5% of the useful compounds [0018].

BASF teaches polyquaternary polymers for hair and skin care. BASF teaches various Luviquat grades of polymers, known as polyquaternium-11, polyquaternium-16, polyquaternium-44 and polyquaternium-46 (Pg. 2) and examples of how each polyquat can be used. BASF teaches that Luviquat PQ 11 (polyquat-11), Luviquat Hold (polyquat-46) and Luviquat HM 552 (polyquat-16) are good choices for products that provide conditioning effect and good hold. However, a particular advantage of Luviquat Hold (elected species) is that, compared with other polyquaternary compounds, it produces a very low-tack film (Pg 4).

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Wisotzki/Beck and BASF. One of skill in the art would have recognized that both Wisotzki and Beck teach film-forming polymers (Wisotzki - PVP and Beck - polyquat-16), used in combination with sugars for the creation of topical hair preparations. As such one of skill in the art would have recognized these film-forming polymers to be functional equivalents, which could be interchanged, absent evidence to the contrary. Furthermore, BASF teaches different polyquat grades, therefore one of skill in the art would have been motivated to utilize a different polyquat, such as polyquaternium-46, as BASF

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teaches that this polyquat has particular advantages over other polyquat, in that it produces products with less-tack. One of skill in the art would expect reasonable success as both Wisotzki and Beck teach hair composition comprising sugars in combination with film-forming polymers and BASF teaches polyquaternary polymers, which are all utilized for the same purposes, however some show preferable advantages over others, such as polyquaternium-46.

Response to Arguments

Applicant argues Beck teaches a hair treatment composition but for a different purpose compared to the present application and describe the combination of film forming polymers such as polyquaternium-16 and various saccharides.

This is not persuasive. The composition of the prior art need not claim the same purpose and mechanism as that of the instant claims. As the composition claimed and that of the prior art are the same, they are expected to have the same properties, absent any evidence to the contrary.

MPEP 2112 I. "[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer." Atlas Powder Co. v. Ireco Inc., 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999). Thus the claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. In re Best, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977)."

With respect to the 102b rejection of Wisotzki Applicant argues art fails to specifically teach the combination of film-forming agent and xylose in a specific range defined in the claims. Indeed, the mere listing of possibilities where one has to choose variables from different laundry

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lists, as is the case with Wisotzki, to arrive at the composition claimed is an improper standard for establishing that the claims lack novelty. In particular, Wisotzki does not describe the arrangement of the specific film former and xylose defined in the claims with any specificity to select the form and contents of that composition such that they are sufficiently limited or well delineated to place the claimed composition in the possession of the public, a requirement under US law.

This is not persuasive. Examiner would like to note that claim 1 of Wisotzki teaches a composition comprising a) panthenol, b) a mono or d-saccharide, c) PVP polymers (film-formers) and d) a triol of Formula I. Furthermore, claim 10, which directly depends from claim 1, discloses 12 suitable options for the mono or di-saccharide, one of them being xylose. Claims 2-6 and Table 2 further define the saccharide to be preferably present in amounts ranging from 0.1-5.0%. As such, it can be seen that a composition comprising PVP and Xylose (0.1-5%), is well disclosed by Wisotzki and is sufficiently limited and well delineated.

Applicant further argues that Beck and Wisotzki does not guide one of skill in the art towards a particular solution. A finding of obviousness would not be obtained where what was obvious to try was to explore a new area of technology or general approach that seemed to be a promising field of experimentation where both Wisotzki and Beck simply provide general guidance as to the particular form of the claimed invention or how to achieve it. While Wisotzki and Beck at least suggest the possibility of combining film forming agents in saccharides they teach very different compositions compared to what is claimed with only general disclosure as to what could be included and, as such, there is simply nothing in these citations that suggest to the problem underlying the present invention, that is, to provide non-permanent shaping of hair.

This is not persuasive. As can be seen above, Wisotzki clearly discloses combining a film-forming agent with xylose in the quantities claimed and furthermore the prior art need not

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claim the same purpose and mechanism as that of the instant claims. As the composition claimed and that of the prior art are the same, they are expected to have the same properties, absent any evidence to the contrary. As noted in the above rejections the phrase "to impart durable non-permanent shape to hair..." is a recitation of intended use and is a property that the composition of the prior art is expected to have, absent evidence to the contrary, as the prior art discloses/teaches all the structural limitations recited by the instant claims,

Applicant further argue that the inventors unexpectedly discovered that in addition to retaining moisture, a certain class of sugars (e.g., xylose as defined in the claims) imparted a durable non-permanent shape or durable retention of a non-permanent shape or style to hair. In the specification there are presented a number of comparative tests to access curl efficiency or similar where example 1 on page 20 uses xylance showing that improved curl efficiency is a function of concentration. Similar results were shown in example 2 using neutralized polymer and example 3 shows comparative data with and without xylance demonstrating the importance of that monosaccharide. Examples 4-11 combine PVP/VA with and with out xylose in a concentration of 1%, the results of which demonstrate the combination had better effects compared to only the film formers. Again, it is already noted on page 8 of the application, that the combination of components in the claimed composition and its effect was unexpected.

This is not persuasive. While applicant has demonstrated the relationship between curl efficiency and concentration, applicant has not demonstrated that the claimed combination is critical. Applicant demonstrate that xylose added to PVP is better than PVP alone, but does the criticality lie with the xylose or is it just the addition of a sugar? Would any sugar provide the same effect?

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Conclusion

No claims are allowable.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Berríos whose telephone number is (571)270-7679. The examiner can normally be reached on Monday-Thursday: 7:00am-4:00pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Kwon can be reached on (571) 272-0581. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer A Berríos/
Examiner, Art Unit 1613

/Tracy Vivlemore/
Primary Examiner, Art Unit 1635